

REMARKSObjection to the Abstract

In the Office Action, the abstract was objected to because it exceeds the limit of 150 words.

The abstract has been amended to include less than 150 words. Withdrawal of the objection to the Abstract is requested.

Rejection of Claims and Summary of Response

Claims 1-40 were filed. Claims 10-40 have been withdrawn from consideration as a result of a restriction requirement. Claims 1-9 were rejected under 35 U.S.C. § 112. Claims 1-9 were rejected under 35 U.S.C. § 103. Claims 10-40 have been canceled. Claims 1-9 have been amended. Claims 41-77 have been added. Reconsideration and allowance of Claims 1-9, and allowance of Claims 41-77 is requested.

Rejection of Claims under 35 U.S.C. § 112

In the Office Action, Claims 1-9 were rejected under 35 U.S.C. § 112, second paragraph. The Office Action stated that "[t]he phrase 'said mode of operation' (claim 1, line 13) lacks antecedent basis."

Claim 1 has been amended to delete "said mode of operation" and to now recite that "the interface device is adapted to enable operation in accordance with multiple modes of operation."

In view of the foregoing, it is requested that the rejection of Claims 1-9 under 35 U.S.C. § 112 be withdrawn.

Rejection of Claims under 35 U.S.C. § 103

in the Office Action, Claims 1-9 were rejected under 35 U.S.C. § 103 as unpatentable over Wilkinson et al.

(U.S. Patent No. 6,308,317). The Office Action stated:

As to claim 1, Wilkinson teaches the invention substantially as claimed including a system for an integrated circuit card interface device, the interface device operable in one or more modes of operation (abstract and fig. 1), comprising:

- an application memory (e.g., EEPROM, ROM; col. 7, lines 43-55 and col. 12, lines 49-64);
- an application engine (e.g., a card virtual machine; col. 8, lines 20-22) for managing one or more applications (e.g., applications; col. 8, lines 20-22) in the application memory;
- an input/output module (e.g., I/O; col. 12, lines 20-25);
- a host interface (e.g., terminal communicator 12b; fig. 1);
- one or more integrated circuit card interfaces (e.g., communicator 12a; fig. 1);
- an input unit (e.g., receiving commands from the user; col. 12, lines 43-48);

wherein the application engine interacts with the input/output module appropriate to the mode of operation to interface with an integrated circuit card operably connected to the interface device (e.g., the selected Java card application 126z communicates with an appropriate application in the terminal 14 ... receiving responses from the Java card application 126z, which are processed and passed back to the user; col. 12, lines 26-48).

As amended, Claim 1 recites:

An integrated circuit card interface device, comprising:

- an application memory;
- an application engine for managing one or more applications in said application memory;
- an input/output module;
- a host interface; and
- one or more integrated circuit card interfaces;

wherein the interface device is adapted to enable operation in accordance with multiple modes of operation.

Wilkinson et al., teach "[an] invention [that] relates in general to the field of programming, and more particularly to using a high level programming language with a smart card or a microcontroller" (column 1, lines 16-19). Wilkinson et al. further teach, at column 7, lines 46-56:

[An] integrated circuit card 10 has a communicator 12a that is configured to communicate with a terminal communicator 12b of a terminal 14. In some embodiments, the integrated circuit card 10 is a smart card ...; the terminal communicator 12b is a conventional contact smart card reader; and the terminal 14 is a conventional personal computer running the Windows NT operating system supporting the personal computer smart card (PC/SC) standard and providing Java development support.

Wilkinson et al. teach that "[t]he terminal 14 prepares and downloads Java applications to the integrated circuit card 10 using the terminal communicator 12b" (column 7, line 66 to column 8, line 1). Wilkinson et al. teach that "[t]he integrated circuit card 10 contains a card Java virtual machine (Card JVM) 16, which is used to interpret applications which are contained on the card 10" (column 8, lines 20-22).

As can be seen, then, to the extent that there is similarity between the invention taught by Wilkinson et al. and the integrated circuit card interface device recited in Claim 1, the terminal 14 taught by Wilkinson et al. performs a role that is analogous to that of the integrated circuit card interface device recited in Claim 1, while the integrated circuit card 10 taught by Wilkinson et al. performs a role that is analogous to that of the integrated circuit card recited in Claim 1. However, in support of the contention that Wilkinson et al. teach many of the

limitations of the integrated circuit card interface device recited in Claim 1 (see the references in the above-quoted section of the Office Action to the teaching of Wilkinson et al. in columns 7, 8 and 12, and in Figure 1 of the Wilkinson et al. patent), the Office Action identifies teaching of Wilkinson et al. regarding characteristics of the integrated circuit card 10 taught therein, not the terminal 14. Such teaching of Wilkinson et al. cannot constitute teaching of any of the limitations of the integrated circuit card interface device as recited in Claim 1. To illustrate with one example (the same rationale applies equally to the other teaching of Wilkinson et al. identified in the Office Action in support of the rejection of Claim 1), in the Office Action it is contended that the communicator 12a of the integrated circuit card 10 described by Wilkinson et al. (see Figure 1 of the Wilkinson et al. patent) constitutes the "one or more integrated circuit card interfaces" recited in Claim 1. If this is so, then the integrated circuit card 10 taught by Wilkinson et al. communicates via the communicator 12a with another integrated circuit card. Wilkinson et al. do not teach that such is the case: rather, Wilkinson et al. teach that the integrated circuit card 10 communicates via the communicator 12a with the terminal 14. Moreover, Wilkinson et al. do not suggest such an arrangement (i.e., direct communication between two integrated circuit cards) and, in fact, such an arrangement would not appear to make sense (certainly not in the context of the invention taught by Wilkinson et al.).

Therefore, in view of the foregoing remarks, Claim 1 is allowable over the teaching of Wilkinson et al.

Notwithstanding the foregoing remarks, which make clear that no amendment to Claim 1 as originally filed is necessary to overcome the bases for rejection of Claim 1 in view of the teaching of Wilkinson et al. that have been given in the Office Action, Claim 1 has been amended herein to clarify aspects of the integrated circuit card interface device recited in that claim. In particular, as amended, Claim 1 recites "[a]n integrated circuit card interface device, comprising ... a host interface; [and] one or more integrated circuit card interfaces; ... wherein the interface device is adapted to enable operation in accordance with multiple modes of operation." Wilkinson et al. do not appear to teach or suggest such an integrated circuit card interface device. For example, the terminal 14 taught by Wilkinson et al. does not include both a host interface and one or more integrated circuit card interfaces, as recited in Claim 1, nor do Wilkinson et al. suggest modification of the terminal 14 to provide such interfaces, since such modification would not serve the purpose of the invention taught by Wilkinson et al. (i.e., enabling use of a high level programming language with a smart card or a microcontroller). An integrated circuit card interface device as recited in Claim 1 advantageously provides flexibility in use of the interface device that enhances the utility of the interface device (see, e.g., page 2, lines 21-30 of Applicants' specification).

Each of Claims 2-9 depends on Claim 1, either directly or indirectly, and is therefore allowable as dependent on an allowable claim.

In view of the foregoing, it is requested that the rejection of Claims 1-9 under 35 U.S.C. § 103 be withdrawn.

New Claims

Claims 41-68 have been added.

Support for Claim 41 can be found in Applicants' specification at, for example, page 3, lines 2-7. Support for Claim 42 can be found in Applicants' specification at, for example, page 9, lines 3-17. Support for Claims 43, 44, 61 and 62 can be found in Applicants' specification at, for example, page 5, lines 20-23 and page 9, lines 6-8. Support for Claims 46-49, 51-56 and 64-67 can be found in Applicants' specification at, for example, page 5, lines 16-20 and page 9, lines 11-14. Support for Claims 45, 50 and 63 can be found in Applicants' specification at, for example, page 9, lines 8-11 and page 11, lines 16-21. Support for Claims 57-60 can be found in Applicants' specification at, for example, page 15, lines 5-13. Support for Claim 68 can be found, for example, in Claim 1 as originally filed.

Each of Claims 41-68 depends on Claim 1, either directly or indirectly, and is therefore allowable as dependent on an allowable claim.

Claims 69-77 have also been added.

Support for Claim 69 can be found in Applicants' specification at, for example, page 5, lines 16-29. Support for Claim 70 can be found in Applicants' specification at, for example, page 5, lines 20-23 and page 9, lines 6-8. Support for Claims 71 and 75 can be found in Applicants' specification at, for example, page 9, lines 8-11 and page 11, lines 16-21. Support for Claims 72-74 and 76 can be found in Applicants' specification at, for example, page 5, lines 16-20 and page 9, lines 11-14. Support, for Claim 77 can be found in Applicants' specification at, for example, page 15, lines 5-13.

Claim 69 recites:

(New) A portable integrated circuit card interface device, comprising:

means for operably connecting the interface device to an integrated circuit card to enable communication between the interface device and the integrated circuit card;

means for operably connecting the interface device to a host device to enable communication between the interface device and the host device;

means for operating the interface device in a standalone mode in which the interface device is not operably connected to a host device to enable communication between the interface device and the host device; and

means for operating the interface device in a connected mode in which the interface device is operably connected to a host device to enable communication between the interface device and the host device.

As discussed above, Wilkinson et al. do not appear to teach or suggest "[a]n integrated circuit card interface device, comprising ... a host interface; [and] one or more integrated circuit card interfaces; ... wherein the interface device is adapted to enable operation in accordance with multiple modes of operation," as recited in Claim 1. Similarly, Wilkinson et al.

do not appear to teach or suggest, "[a] portable integrated circuit card interface device, comprising: means for operably connecting the interface device to an integrated circuit card ...; means for operably connecting the interface device to a host device ...; means for operating the interface device in a standalone mode ...; and means for operating the interface device in a connected mode ...," as recited in Claim 69. Thus, Claim 69 is allowable over the teaching of Wilkinson et al.

Each of Claims 70-77 depends on Claim 69, either directly or indirectly, and is therefore allowable as dependent on an allowable claim.

CONCLUSION

Claims 1-40 were pending. Claims 10-40 were withdrawn from consideration as a result of a restriction requirement. Claims 1-9 were rejected. Claims 10-40 have been canceled. Claims 1-9 have been amended. Claims 41-77 have been added. In view of the foregoing, it is requested that Claims 1-9 and 41-77 be allowed. If the Examiner wants to discuss any aspect of this application, the Examiner is invited to telephone Applicants' undersigned attorney at (408) 945-9912.

I hereby certify that this correspondence is being transmitted via facsimile to the U.S. Patent and Trademark Office, Group Art Unit 2126, facsimile number (703) 872-9306, on September 15, 2004.

9-15-04 David R. Graham
Date Signature

Respectfully submitted,

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